



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

**(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific**

WORK ORDER #: 0609025B

Work Order Summary

CLIENT: Mr. Demian Wincele
ERM-West
2525 Natomas Park Drive
Suite 350
Sacramento, CA 95833

BILL TO: Mr. Dave McCready
Aerojet
Bldg.2001 Dept. 0330
PO Box 13222
Sacramento, CA 95813

PHONE: 916-924-9378

P.O. #

FAX: 916-924-5313

PROJECT # 20648.03 Aerojet PGOU

DATE RECEIVED: 09/01/2006

CONTACT: Nicole Danbacher

DATE COMPLETED: 09/15/2006

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>
01A	7D-SP13-10	Modified ASTM D-1945	0.2 psi
02A	FCS-SP03-10	Modified ASTM D-1945	1.0 "Hg
03A	FCS-SP06-10	Modified ASTM D-1945	7.0 "Hg
04A	FCS-SP06-20	Modified ASTM D-1945	6.5 "Hg
05A	FCS-SP06-20D	Modified ASTM D-1945	5.0 "Hg
06A	FCS-SP07-20	Modified ASTM D-1945	7.5 "Hg
07A	4D-SP23-10	Modified ASTM D-1945	7.5 "Hg
08A	11D-SP19-10	Modified ASTM D-1945	7.0 "Hg
09A	FCS-SP16-10	Modified ASTM D-1945	4.0 "Hg
10A	FCS-SP16-20	Modified ASTM D-1945	7.0 "Hg
10AA	FCS-SP16-20 Duplicate	Modified ASTM D-1945	7.0 "Hg
11A	34D-SP08-10	Modified ASTM D-1945	7.5 "Hg
12A	37D-SP08-10	Modified ASTM D-1945	1.0 "Hg
13A	37D-SP08-10D	Modified ASTM D-1945	0.0 "Hg
14A	10D-SP34-10	Modified ASTM D-1945	6.5 "Hg
15A	C32-SV02-20	Modified ASTM D-1945	2.5 "Hg
16A	C32-SV02-10	Modified ASTM D-1945	8.0 "Hg

Continued on next page

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FRACTION #

NAME

TEST

RECEIPT
VAC./PRES.

17A

C32-090106

Modified ASTM D-1945

3.0 "Hg

18A

Lab Blank

Modified ASTM D-1945

NA

19A

LCS

Modified ASTM D-1945

NA

CERTIFIED BY:



DATE: 09/15/06

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1945
ERM-West
Workorder# 0609025B

Seventeen 1 Liter Summa Canister samples were received on September 01, 2006. The laboratory performed analysis via modified ASTM Method D-1945 for Helium in natural gas using GC/TCD. The method involves direct injection of 1.0 mL of sample. See the data sheets for the reporting limit.

Method modifications taken to run these samples include:

<i>Requirement</i>	<i>ASTM D-1945</i>	<i>ATL Modifications</i>
Normalization	Sum of original values should not differ from 100.0% by more than 1.0%.	Sum of original values may range between 75-125%. Normalization of data not performed.
Sample analysis	Equilibrate samples to 20-50° F. above source temperature at field sampling	No heating of samples is performed.
Sample calculation	Response factor is calculated using peak height for C5 and lighter compounds.	Peak areas are used for all target analytes to quantitate concentrations.
Reference Standard	Concentration should not be < half of nor differ by more than 2 X the concentration of the sample. Run 2 consecutive checks; must agree within 1%.	A minimum 3-point linear calibration is performed. The acceptance criterion is %RSD <= 25%. All target analytes must be within the linear range of calibration (with the exception of O2, N2, and C6+ Hydrocarbons).
Sample Injection Volume	0.50 mL to achieve Methane linearity.	1.0 mL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Six qualifiers may have been used on the data analysis sheets and indicate as follows:

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.



U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: 7D-SP13-10

Lab ID#: 0609025B-01A

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.020	2.3

Client Sample ID: FCS-SP03-10

Lab ID#: 0609025B-02A

No Detections Were Found.

Client Sample ID: FCS-SP06-10

Lab ID#: 0609025B-03A

No Detections Were Found.

Client Sample ID: FCS-SP06-20

Lab ID#: 0609025B-04A

No Detections Were Found.

Client Sample ID: FCS-SP06-20D

Lab ID#: 0609025B-05A

No Detections Were Found.

Client Sample ID: FCS-SP07-20

Lab ID#: 0609025B-06A

No Detections Were Found.

Client Sample ID: 4D-SP23-10

Lab ID#: 0609025B-07A

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.027	12

Client Sample ID: 11D-SP19-10

Lab ID#: 0609025B-08A

No Detections Were Found.



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Summary of Detected Compounds NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: FCS-SP16-10

Lab ID#: 0609025B-09A

No Detections Were Found.

Client Sample ID: FCS-SP16-20

Lab ID#: 0609025B-10A

No Detections Were Found.

Client Sample ID: FCS-SP16-20 Duplicate

Lab ID#: 0609025B-10AA

No Detections Were Found.

Client Sample ID: 34D-SP08-10

Lab ID#: 0609025B-11A

No Detections Were Found.

Client Sample ID: 37D-SP08-10

Lab ID#: 0609025B-12A

No Detections Were Found.

Client Sample ID: 37D-SP08-10D

Lab ID#: 0609025B-13A

No Detections Were Found.

Client Sample ID: 10D-SP34-10

Lab ID#: 0609025B-14A

No Detections Were Found.

Client Sample ID: C32-SV02-20

Lab ID#: 0609025B-15A

No Detections Were Found.

Client Sample ID: C32-SV02-10

Lab ID#: 0609025B-16A

No Detections Were Found.



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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

Client Sample ID: C32-090106

Lab ID#: 0609025B-17A

No Detections Were Found.



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: 7D-SP13-10

Lab ID#: 0609025B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9090707b	Date of Collection: 8/31/06
Dil. Factor:	1.99	Date of Analysis: 9/7/06 10:20 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.020	2.3

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: FCS-SP03-10

Lab ID#: 0609025B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090708b
Dil. Factor: 2.09

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 10:53 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.021	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: FCS-SP06-10

Lab ID#: 0609025B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090709b
Dil. Factor: 2.64

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 11:18 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.026	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: FCS-SP06-20

Lab ID#: 0609025B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090710b
Dil. Factor: 2.58

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 11:47 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.026	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: FCS-SP06-20D

Lab ID#: 0609025B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090711b
Dil. Factor: 2.42

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 12:09 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.024	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: FCS-SP07-20

Lab ID#: 0609025B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090712b
Dil. Factor: 2.69

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 12:32 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.027	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: 4D-SP23-10

Lab ID#: 0609025B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9090713b	Date of Collection: 8/31/06
Dil. Factor:	2.69	Date of Analysis: 9/7/06 12:57 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.027	12

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: 11D-SP19-10

Lab ID#: 0609025B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090714b
Dil. Factor: 2.64

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 01:19 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.026	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: FCS-SP16-10

Lab ID#: 0609025B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090715b
Dil. Factor: 2.33

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 01:41 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.023	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: FCS-SP16-20

Lab ID#: 0609025B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090716b
Dil. Factor: 2.64

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 02:23 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.026	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: FCS-SP16-20 Duplicate

Lab ID#: 0609025B-10AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090717b
Dil. Factor: 2.64

Date of Collection: 8/31/06
Date of Analysis: 9/7/06 02:51 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.026	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: 34D-SP08-10

Lab ID#: 0609025B-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9090718b	Date of Collection: 9/1/06
Dil. Factor:	2.69	Date of Analysis: 9/7/06 03:14 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.027	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: 37D-SP08-10

Lab ID#: 0609025B-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090719b
Dil. Factor: 2.09

Date of Collection: 9/1/06
Date of Analysis: 9/7/06 03:37 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.021	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: 37D-SP08-10D

Lab ID#: 0609025B-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090720b
Dil. Factor: 2.02

Date of Collection: 9/1/06
Date of Analysis: 9/7/06 03:59 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.020	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: 10D-SP34-10

Lab ID#: 0609025B-14A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090721b
Dil. Factor: 2.58

Date of Collection: 9/1/06
Date of Analysis: 9/7/06 04:50 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.026	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: C32-SV02-20

Lab ID#: 0609025B-15A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090722b
Dil. Factor: 2.20

Date of Collection: 9/1/06
Date of Analysis: 9/7/06 05:15 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.022	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: C32-SV02-10

Lab ID#: 0609025B-16A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090723b
Dil. Factor: 2.76

Date of Collection: 9/1/06
Date of Analysis: 9/7/06 05:46 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.028	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: C32-090106

Lab ID#: 0609025B-17A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090724b
Dil. Factor: 2.24

Date of Collection: 9/1/06
Date of Analysis: 9/7/06 06:24 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.022	Not Detected

Container Type: 1 Liter Summa Canister



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0609025B-18A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	9090704b	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/7/06 07:47 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.010	Not Detected

Container Type: NA - Not Applicable



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0609025B-19A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name: 9090726b
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 9/7/06 09:40 PM

Compound	%Recovery
Helium	106

Container Type: NA - Not Applicable